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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/523,029 | 09/07/2005 | Oleg Stenzel | 264626US0PCT | 8401 |
| 22850 | 7590 | 04/18/2008 | | |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | | |
| EXAMINER | | | | |
| HANOR, SERENA L | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1793 | | | | |
| NOTIFICATION DATE | | DELIVERY MODE | | |
| 04/18/2008 | | ELECTRONIC | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary**Application No.**

10/523,029

Applicant(s)

STENZEL ET AL.

Examiner

SERENA L. HANOR

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) 5-20 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☒ Claim(s) 5-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 02 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date See Continuation Sheet
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :02/02/2005, 04/06/2005, 10/11/2005.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I, claims 1-4, in the reply filed on 01/31/2008 is acknowledged. The traversal is on the ground(s) that "no adequate reasons and/or examples have been provided to support a conclusion of patentable distinctiveness between the identified groups" and that "it has not been shown that a burden exists in searching the claims of the two groups" (see Remarks filed 01/31/2008). This is not found persuasive because the application's special technical feature, a precipitated silica with a BET surface area of 178-302 m²/g, a CTAB surface area of ≥ 170 m²/g, a DBP number of 200-300 g/(100g), and a Sears number V₂ of 10-35 ml/ (5g), is not novel over the prior art (see written restriction requirement issued in the Office Action dated 12/31/2007) (Goertl et al., U.S. Patent No. 5,705,137).

The requirement is still deemed proper and is therefore made FINAL.

Claims 5-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 01/31/2008.

Nonstatutory Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

i. Claims 1-4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-4 of copending Application No. 10/522,672. Although the conflicting claims are not identical, they are not patentably distinct from each other because the precipitated silica of 10/522,672 has physical and chemical properties that fall within the ranges of those of the precipitated silica of the instant invention.

| Properties | Instant Invention | 10/522,672 |
|---------------------------------------|-------------------|------------|
| BET surface area (m ² /g) | 178-302 | 200-300 |
| CTAB surface area (m ² /g) | ≥170, ≤300 | ≥170, ≤300 |
| DBP number (g/(100g)) | 200-300 | 200-300 |

| | | |
|--------------------------|-------|-------|
| Sear number V2 (ml/(5g)) | 10-35 | 23-35 |
|--------------------------|-------|-------|

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

ii. Claims 1 and 4 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 5, 18, of copending Application No. 10/542,850. Although the conflicting claims are not identical, they are not patentably distinct from each other because the precipitated silica of 10/542,850 has physical and chemical properties that fall within the ranges of those of the precipitated silica of the instant invention.

| Properties | Instant Invention | 10/542,850 |
|---|-------------------|-----------------------|
| BET surface area (m^2/g) | 178-302 | See explanation below |
| CTAB surface area (m^2/g) | ≥ 170 | 100-200 |
| DBP number ($\text{g}/(100\text{g})$) | 200-300 | 210-280 (or 250-280) |
| Sear number V2 (ml/(5g)) | 10-35 | 10-30 (or 20-30) |

Application No. 10,542,850 discloses a BET/CTAB ratio of 0.8-1.05, which means that if the ratio is 1.05 and the CTAB surface area is $200 \text{ m}^2/\text{g}$, the BET surface area is $210 \text{ m}^2/\text{g}$, which falls within the BET surface area range of the instant invention. Furthermore, both inventions claim the modification of the precipitated silica with the same organosilanes.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

iii. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 16 and 19 of copending Application No. 11/517,395. Although the conflicting claims are not identical, they are not patentably distinct from each other because the precipitated silica of 11/517,395 has physical and chemical properties that fall within the ranges of those of the precipitated silica of the instant invention.

| Properties | Instant Invention | 11/517,395 |
|---------------------------------------|-------------------|------------|
| BET surface area (m ² /g) | 178-302 | 90-320 |
| CTAB surface area (m ² /g) | ≥170 | 100-200 |
| DBP number (g/(100g)) | 200-300 | 200-330 |
| Sear number V2 (ml/(5g)) | 10-35 | 25-40 |

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

iv. Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, and 4 of copending Application No. 11/517,396. Although the conflicting claims are not identical, they are not patentably distinct from each other because the precipitated silica of 11/517,395 has

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physical and chemical properties that fall within the ranges of those of the precipitated silica of the instant invention.

| Properties | Instant Invention | 11/517,395 |
|---------------------------------------|-------------------|------------|
| BET surface area (m ² /g) | 178-302 | 90-320 |
| CTAB surface area (m ² /g) | ≥170 | 100-200 |
| DBP number (g/(100g)) | 200-300 | 200-330 |
| Sear number V2 (ml/(5g)) | 10-35 | 28-40 |

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

v. Claims 1-4 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 13 of U.S. Patent No. 6,180,076 B1. Although the conflicting claims are not identical, they are not patentably distinct from each other because the precipitated silica of U.S. Patent No. 6,180,076 B1 has physical and chemical properties that fall within the ranges of those of the precipitated silica of the instant invention.

| Properties | Instant Invention | 6,180,076 B1 |
|---------------------------------------|-------------------|--------------|
| BET surface area (m ² /g) | 178-302 | 120-300 |
| CTAB surface area (m ² /g) | ≥170, ≤300 | 100-300 |
| DBP number (g/(100g)) | 200-300 | 150-300 |
| Sear number V2 (ml/(5g)) | 10-35 | 6-25 |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

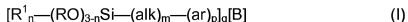
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

i. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Goerl et al. (U.S. Patent No. 5,705,137).

Goerl et al. discloses a precipitated silica with the following characteristics (col. 2 lines 33-54):

| | |
|-----------------------------|---------------------------|
| BET surface area | 35-350 m ² /g |
| CTAB surface area | 200-400 m ² /g |
| DBP number | 230-380 g/(100g) |
| Sears number V ₂ | 20-30 ml. |

Furthermore, precipitated silicas may have their surfaces modified by the following organosilanes (col. 3):



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wherein:

B: -SCN, -SH, -Cl, -NH₂ (if q=1), or -Sx--(if q=2),R and R¹: an alkyl group with 1 to 4 carbon atoms or a phenyl group, wherein all R and R¹ groups may be identical or different,

n: 0, 1, or 2,

alk: a divalent straight-chain or branched hydrocarbon group with 1 to 6 carbon atoms,

m: 0 or 1,

ar: an arylene group with 6 to 12 C atoms, preferably 6 C atoms,

p: 0 or 1, with the proviso that p and n are not simultaneously 0,

x: a number from 2 to 8,

alkyl: a monovalent straight-chain or branched saturated hydrocarbon group with 1 to 20 carbon atoms, preferably 2 to 8 carbon atoms,

alkenyl: a monovalent straight-chain or branched unsaturated hydrocarbon group with 2 to 20 carbon atoms, preferably 2 to 8 carbon atoms.

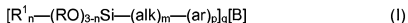
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ii. Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Goerl et al. (U.S. Patent No. 5,859,117).

Goerl et al. discloses a precipitated silica with the following characteristics (col. 2 lines 35-55):

| | |
|-----------------------------|---------------------------|
| BET surface area | 35-350 m ² /g |
| CTAB surface area | 200-400 m ² /g |
| DBP number | 230-380 g/(100g) |
| Sears number V ₂ | 20-30 ml. |

Furthermore, precipitated silicas may have their surfaces modified by the following organosilanes (col. 3):



wherein:

B: -SCN, -SH, -Cl, -NH₂ (if q=1), or -Sx--(if q=2),

R and R¹: an alkyl group with 1 to 4 carbon atoms or a phenyl group, wherein all R and R¹ groups may be identical or different,

n: 0, 1, or 2,

alk: a divalent straight-chain or branched hydrocarbon group with 1 to 6 carbon atoms,

m: 0 or 1,

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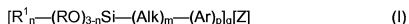
- ar: an arylene group with 6 to 12 C atoms, preferably 6 C atoms,
- p: 0 or 1, with the proviso that p and n are not simultaneously 0,
- x: a number from 2 to 8,
- alkyl: a monovalent straight-chain or branched saturated hydrocarbon group with 1 to 20 carbon atoms, preferably 2 to 8 carbon atoms,
- alkenyl: a monovalent straight-chain or branched unsaturated hydrocarbon group with 2 to 20 carbon atoms, preferably 2 to 8 carbon atoms.

iii. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Uhrlandt et al (U.S. Patent No. 6,180,076 B1).

Uhrlandt et al. is drawn to a precipitated silica with the following physical and chemical properties (col. 1 lines 40-50):

| | |
|-----------------------------|-------------------------------------|
| BET surface area | 120-300 m ² /g |
| CTAB surface area | 100-300 m ² /g |
| DBP number | 150-300 g/(100g) |
| Sears number V ₂ | 6-25 ml (consumption of 0.1 N NaOH) |
| WK coefficient | < 3.4 |
| Degraded particle size | <1.0 μm |
| Non-degraded particle size | 1.0-100 μm. |

The precipitated silica is modified with organosilanes of the formulae I to III (col. 3-4):



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wherein:

Z: -SCN, -SH, -Cl, -NH₂ (if q=1), or -Sx--(if q=2),R and R¹: an alkyl group having 1 to 4 carbon atoms, the phenyl radical, wherein all the radicals R and R¹ can each have the same or a different meaning,R: a C₁-C₄ -alkyl, C₁-C₄ -alkoxy group,

n: 0, 1, or 2,

Alk: a divalent straight-chain or branched hydrocarbon radical having 1 to 6 carbon atoms,

m: 0 or 1,

Ar: an arylene radical having 6 to 12 C atoms, preferably 6 C atoms,

p: 0 or 1, with the proviso that p and n do not simultaneously denote 0,

x: a number from 2 to 8,

alkyl: a monovalent straight-chain or branched unsaturated hydrocarbon radical having 1 to 20 carbon atoms, preferably 2 to 8 carbon atoms,

alkenyl: a monovalent straight-chain or branched unsaturated hydrocarbon radical having 2 to 20 carbon atoms, preferably 2 to 8 carbon atoms.

iv. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Lindner et al. (U.S. Pre-Grant Publication 2003/0003040 A1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Lindner et al. discloses a precipitated silica with the following characteristics (claims 1, 4):

| | |
|-----------------------------|--------------------------|
| BET surface area | 50-700 m ² /g |
| CTAB surface area | 50-350 m ² /g |
| DBP number | 100-450 g/(100g) |
| Sears number V ₂ | 20-45 ml. |

Conclusion

Claims 1-4 have been rejected.

Claims 5-20 have been withdrawn as being drawn to a non-elected invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SERENA L. HANOR whose telephone number is

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(571)270-3593. The examiner can normally be reached on Monday - Thursday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SLH

/Timothy C Vanoy/
Primary Examiner, Art Unit 1793